

lobe was successfully removed, and the uninfected cystic upper lobe left in situ with a good result.

The methods of prevention of recurrent goiter are ably discussed by J. E. Else. He divides recurrences into four classes: (1) errors in diagnosis; (2) patients operated upon after permanent lesions have been produced; (3) incomplete operations; and (4) true recurrences. He advocates removing the entire thyroid except a thin layer along the posterior capsule.

Frank Hinman presents a clear, concise, well balanced discussion of *urogenital tuberculosis*. Renal tuberculosis starts as a unilateral disease. In case both renal and genital organs are involved, the kidney should be removed first. A persistent vesical tuberculosis may be relieved by temporary nephrostomy and permanent ureterorectoneostomy. In genital tuberculosis the epididymis alone should be removed if the disease is chiefly limited to that organ, but the radical operation should be done when there is marked involvement of the seminal vesicles.

As a whole, the articles in this number of the Surgical Clinics do not impress one as being as instructive and as carefully prepared as usual. Perhaps this is because there are thirty-four different contributors and the space allotted to each is consequently limited.

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*What Is Life?* By AUGUSTA GASKELL. Introduction by Karl T. Compton, Professor of Physics, Princeton University, and by Raymond Pearl, Professor of Biology, the Johns Hopkins University. Published by Charles C. Thomas, Springfield, Illinois. Baltimore, Maryland. 1928. 304 pages.

In "What Is Life?" Augusta Gaskell presents an entirely original theory based upon modern atomic physics. Her thesis is that protons and electrons are able to unite in combinations of a type as yet undiscovered; these form the "active" ingredients of living matter. These elements, called the "Z-system", exist in combination with ordinary atoms, termed the "Y-system", and constitute an "atomic-intraatomic" dual system which is characteristic of living organisms. Given a "critical concentration of atoms" under proper conditions of temperature and pressure, such as might have occurred many times upon this globe, it would have been possible, Mrs. Gaskell believes, for a "Z-system" to originate, thus starting a new chain of living organisms. The application of this theory to many of the phenomena of life, such as evolution, heredity, and death, is discussed by the author.

Introductions to the book have been written by Karl Taylor Compton, Professor of Physics at Princeton, and by Raymond Pearl, Professor of Biology at Johns Hopkins. Professor Compton vouches for the accuracy of Mrs. Gaskell's physics, and both writers, in a somewhat cautious manner, say that the hypothe-

sis is "interesting if true". At least they know of no evidence which refutes the theory.

The book is well worth reading. Mrs. Gaskell approaches the problem in a thoroughly scientific spirit, lays her arguments before the reader, and frankly states that the truth or falsity of the hypothesis can be proved by laboratory methods. The two criteria which she hopes will be applied are, first, the production of life under the condition which she calls a "critical concentration of atoms", and, second, the quantitative measurement of the "Z-system" determined at the moment of death, when this element becomes separated from the more material constituents of the body.

Whether this hypothesis is a revolutionary discovery or merely a theory incapable of proof only time can tell. Compton says "the author's fundamental assumption must be admitted as possible." It will be interesting to see whether Mrs. Gaskell's challenge to the laboratory will be accepted.

#### BOOKS RECEIVED FOR REVIEW

*Physician and Patient (Personal Care).* Edited by Eugene Emerson. Published by Harvard University Press. 244 Pages. \$2.50.

*Teeth and Jaws.* Edited by Herman A. Osgood. Published by Paul B. Hoeber, Inc. 135 Pages. 419 Figures. Price \$10.00.

*Green's Pathology and Morbid Anatomy.* Revised by A. Piney. Published by Lea & Febiger. 650 Pages. Price \$7.50.

*Handbook of Microscopical Technique.* Edited by C. E. McClung. Published by Paul B. Hoeber. 495 Pages. Price \$8.00.

*Handicrafts for the Handicapped.* Edited by Herbert J. Hall and Mertice M. C. Buck Knox. Published by Dodd, Mead & Company. 181 Pages. Price \$2.50.

*Pneumonia.* Edited by Frederick Taylor Lord. Harvard Health Talks, 9. Published by Harvard University Press. 84 Pages. Price \$1.00.

*Diseases of the Nervous System.* Edited by Smith Ely Jelliffe and William A. White. 1174 Pages. Price \$9.50.

*The Infant and Young Child.* Edited by John L. Morse, Edwin T. Wyman and Lewis W. Hill. Published by W. B. Saunders Company. 299 Pages. Price \$2.00.

*Transactions of the American Gynecological Society, 1928.* Edited by Floyd E. Keene. Published by C. V. Mosby Company. 268 Pages.

*A Textbook of Medicine.* Edited by J. J. Conybeare. Published by William Wood & Company. 976 Pages. Price \$8.00.

*Researches in Polynesia and Melanesia—Human Diseases and Welfare.* Edited by Patrick A. Buxton. Published by London School of Hygiene and Tropical Medicine. 139 Pages. 27 Plates.

*Thyroxine.* Edited by Edward C. Kendall. Published by The Chemical Catalog Company, Inc. 265 Pages. \$5.50.

*Kaufmann's Pathology.* Three volumes. Edited by Edward Kaufmann. Translated by Stanley P. Reimann. Published by Blakiston's Son & Company. 2452 Pages. Price \$30.00.